

Listing of the claims:

1. (Currently amended) A method comprising:
generating an instrumented code of an application;
executing a plurality of tests on the instrumented code of the application;
generating one or more time stamps corresponding to a detection of one or more program states of the application;
generating one or more test profiles associated with the plurality of tests, ~~wherein the~~
one or more test profiles ~~comprise~~ being based on the time stamps; and
selecting at least one of the plurality of tests based on an analysis of the one or more test profiles ~~to reduce testing time of the application, the analysis of the one or more test~~
profiles comprising determining which of the tests reached a breakpoint associated with one
of the program states in a least amount of time.
2. (Original) A method as defined in claim 1, wherein generating the instrumented code of the application comprises inserting one or more probes into the application.
3. (Currently amended) A method as defined in claim 1, wherein generating the
one or more test profiles comprises ~~further comprising~~ identifying the one or more program states to indicate a time-based performance of the plurality of tests in reference to the one or more program states.

4. (Currently amended) A method as defined in claim 1, wherein the ~~one or more time stamps are indicative of an earliest time corresponding to a breakpoint of the application associated with the one or more program states~~ least amount of time is calculated from an onset of the determined test.

5. (Previously presented) A method as defined in claim 1, wherein the one or more time stamps are based on at least one of a hardware timer, a software timer, or a virtual timer.

6. (Currently amended) A method as defined in claim 1, wherein selecting the at least one of the plurality of tests based on the analysis of the one or more test profiles comprises generating a priority list having the at least one of the plurality of tests ~~to identify one or more breakpoints of the application associated with the one or more program states.~~

7. (Previously presented) A method as defined in claim 1, wherein selecting the at least one of the plurality of tests based on the analysis of the one or more test profiles comprises selecting the at least one of the plurality of tests based on the one or more test profiles in response to a query.

8. (Previously presented) A method as defined in claim 1, further comprising storing the one or more test profiles in a database.

9. (Currently amended) A machine readable medium storing instructions that, when executed, cause a machine to:

- generate an instrumented code of an application;
- execute a plurality of tests on the instrumented code of the application;
- generate one or more time stamps corresponding to a detection of one or more program states of the application;
- generate one or more test profiles associated with the plurality of tests, wherein the one or more test profiles comprise the time stamps; and
- select at least one of the plurality of tests based on an analysis of the one or more test profiles to reduce testing time, the analysis of the one or more test profiles comprising determining which of the tests reached a breakpoint associated with one of the program states in a least amount of time.

10. (Original) A machine readable medium as defined in claim 9, wherein the instructions, when executed, cause the machine to generate the instrumented code of the application by inserting one or more probes into the application.

11. (Currently amended) A machine readable medium as defined in claim 9, wherein the instructions, when executed, cause the machine to generate the one or more test profiles associated with the plurality of tests by identifying ~~identify~~ the one or more program states to indicate a time-based performance of the plurality of tests in reference to the one or more program states.

12. (Currently amended) A machine readable medium as defined in claim 9, wherein the ~~one or more time stamps are indicative of an earliest time corresponding to a breakpoint of the application associated with the one or more program states~~ least amount of time is calculated from an onset of the determined test.

13. (Previously presented) A machine readable medium as defined in claim 9, wherein the one or more time stamps are based on at least one of a hardware timer, a software timer, or a virtual timer.

14. (Currently amended) A machine readable medium as defined in claim 9, wherein the instructions, when executed, cause the machine to select the at least one of the plurality of tests based on the analysis of the one or more test profiles by generating a priority list having the at least one of the plurality of ~~tests to identify one or more breakpoints of the application associated with the one or more program states.~~

15. (Currently amended) A machine readable medium as defined in claim 9, wherein the instructions, when executed, cause the machine to select the at least one of the plurality of tests based on the analysis of the one or more test profiles and user input by generating a priority list having the at least one of the plurality of tests ~~to identify the one or more program states for each breakpoint of the application.~~

16. (Previously presented) A machine readable medium as defined in claim 9, wherein the instructions, when executed, cause the machine to select the at least one of the plurality of tests based on the analysis of the one or more test profiles comprises selecting at least one of the plurality of tests based on the one or more test profiles in response to a query.

17. (Original) A machine readable medium as defined in claim 9, wherein the instructions, when executed, cause the machine to store the one or more test profiles in a database.

18. (Previously presented) A machine readable medium as defined in claim 9, wherein the machine readable medium comprises at least one of a programmable gate array, application specific integrated circuit, erasable programmable read only memory, read only memory, random access memory, magnetic media, or optical media.

19. (Currently amended) An apparatus comprising:

- memory configured to store data;
- a data structure stored on the memory and configured to store one or more test profiles;
- a code coverage device configured to generate an instrumented code of an application;
- a time stamp device configured to generate one or more time stamps corresponding to a detection of one or more program states of the application;
- a debugging and testing device configured to execute a plurality of tests on the instrumented code of the application, and to generate one or more test profiles associated with the plurality of tests, wherein the one or more test profiles comprise the time stamps;
- and
- a test selecting device configured to select at least one of the plurality of tests based on an analysis of the one or more test profiles to reduce testing time, the analysis of the one or more test profiles comprising determining which of the tests reached a breakpoint associated with one of the program states in a least amount of time.

20. (Previously presented) An apparatus as defined in claim 19, wherein the code coverage device comprises at least one of a compiler, an assembler, an interpreter, or a post-link optimizer.

21. (Previously presented) An apparatus as defined in claim 19, wherein the instrumented code of the application comprises one or more probes to identify the one or more program states to indicate a time-based performance of the plurality of tests in reference to the one or more program states.

22. (Currently amended) An apparatus as defined in claim 19, wherein the ~~one or more time stamps are indicative of an earliest time corresponding to a breakpoint of the application associated with the one or more program states of the application~~ least amount of time is calculated from an onset of the determined test.

23. (Previously presented) An apparatus as defined in claim 19, wherein the test selecting device is configured to select at least one of the plurality of tests based on the analysis of the one or more test profiles in response to a query.

24. (Currently amended) An apparatus as defined in claim 19, further comprising a test prioritizing device configured to generate a priority list having the at least one of the plurality of tests.

25. (Currently amended) A processor system comprising:

- a dynamic random access memory (DRAM) configured to store at least one test and;
- a processor operatively coupled to the DRAM, the processor being configured to:
 - generate an instrumented code of an application;
 - execute a plurality of tests on the instrumented code of the application;
 - generate one or more time stamps corresponding to a detection of one or more program states of the application;
 - generate one or more test profiles associated with the plurality of tests, wherein the one or more test profiles comprise the time stamps; and
 - select at least one of the plurality of tests based on an analysis of the one or more test profiles ~~to reduce testing time of the application, the analysis of the one or more test profiles comprising determining which of the tests reached a breakpoint associated with one of the program states in a least amount of time.~~

26. (Previously presented) A processor system as defined in claim 25, wherein the instrumented code of the application comprises one or more probes inserted into the application to identify the one or more program states to indicate a time-based performance of the plurality of tests in reference to the one or more program states.

27. (Cancelled).

28. (Currently amended) A processor system as defined in claim 25, wherein the ~~one or more time stamps are indicative of an earliest time corresponding to a breakpoint of the application associated with the one or more program states of the application~~ least amount of time is calculated from an onset of the determined test.

29. (Currently amended) A processor system as defined in claim 25, wherein the processor is configured to generate a priority list having the at least one of the plurality of tests ~~to identify one or more breakpoints of the application associated with the one or more program states.~~

30. (Previously presented) A processor system as defined in claim 25, wherein the processor is configured to select the at least one of the plurality of tests based on the analysis of the one or more test profiles in response to a query.